



RAMP ACCESSIBILITY

460 North Euclid Ave. Upland, CA 91786-4732 (909) 931-4110

1133B.5 Ramps.

1133B.5.1 General. Ramps shall conform to the provisions of this section. Any accessible route of travel shall be considered a ramp if its slope is greater than 1 unit vertical in 20 units horizontal (5-percent slope).

1133B.5.2 Width. Ramps shall have a minimum clear width of 48 inches (1219 mm), unless required to be wider by some other provision of this code. Ramps serving entrances to

buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm). Ramps serving Group R occupancies may be 36 inches (914 mm) clear width when the occupant load is 50 or less.

1133B.5.3 Slope. The least possible slope shall be used for any ramp. The maximum slope of a ramp shall be one unit vertical in 12 units horizontal (8.33-percent slope). The maximum rise for any run shall be 30 inches (762 mm). Examples of ramp dimensions are as follows:

SLOPE	MAXIMUM RISE	MAXIMUM LENGTH
1:12	30 inches (762 mm)	30 feet (9144 mm)
1:13	30 inches (762 mm)	32.5 feet (9906 mm)
1:14	30 inches (762 mm)	35 feet (10668 mm)
1:15	30 inches (762 mm)	37.5 feet (11430 mm)
1:16	30 inches (762 mm)	40 feet (12192 mm)
1:17	30 inches (762 mm)	42.5 feet (12954 mm)
1:18	30 inches (762 mm)	45 feet (13716 mm)
1:19	30 inches (762 mm)	47.5 feet (14478 mm)

1133B.5.3.1 The cross slope of ramp surfaces shall be no greater than one unit vertical in 50 units horizontal (2-percent slope).

1133B.5.4 Landings. Level ramp landings shall be installed as follows:

1133B.5.4.1 Location of landings. Level ramp landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp. Landings shall be level as specified in the definition of "Level area" in Section 1102B.

1133B.5.4.2 Size of top and bottom landings. Top landings shall be not less than 60 inches (1524 mm) wide and shall have a length of not less than 60 inches (1524 mm) in the direction of ramp run. Landings at the bottom of ramps shall have a dimension in the direction of ramp run of not less than 72 inches (1829 mm).

1133B.5.4.3 Doors at ramp landings. Doors at ramp landings shall comply with the maneuvering clearance requirements of Section 1133B.2.4.2, and the requirements of Section 1133B.5.4.4.

1133B.5.4.4 Encroachment of doors at ramp landings. Doors in any position shall not reduce the minimum dimension of the ramp landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76 mm) when fully open. See Figure 11B-39(b).

1133B.5.4.5 Landing width. At bottom and intermediate landings, the width shall be at least the same as required for the ramps.

1133B.5.4.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a dimension in the direction of ramp

run of not less than 72 inches (1829 mm) to accommodate the handrail extension.

1133B.5.4.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm).

1133B.5.4.8 For existing ramps or ramps not covered by Section 1133B.5.4.1, landings shall be provided as set forth in Section 1133B.5.4.1.

1133B.5.4.9 Hazards. Required ramps shall have a curb at least 2 inches (51 mm) high, or a wheel guide rail 2 to 4 inches (51 to 102 mm) high on each side of the ramp landing that has a vertical drop exceeding 4 inches (102 mm) and that is not bounded by a wall or fence.

1133B.5.5 Handrails for ramps.

1133B.5.5.1 Handrails are required on ramps that provide access if the slope exceeds one unit vertical in 20 units horizontal (5-percent slope), except that at exterior door landings, handrails are not required on ramps less than 6 inches (152 mm) rise or 72 inches (1829 mm) in length. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34 to 38 inches (864 to 965 mm) above the ramp surface to the top of the handrails, shall extend a minimum of 1 foot (305 mm) beyond the top and bottom of the ramp and shall be parallel with the floor or ground surface. The inside handrail on switchback or dogleg ramps shall always be continuous. Handrails may project into the required clear width a distance of 3½ inches (89 mm) maximum from each side of a ramp at the handrail height. The ends of handrails shall be either rounded or returned smoothly to floor, wall or post. Handrails projecting from a wall shall have a space of 1½ inches (38 mm) between the wall and the handrail. Handrails may be located in a recess if the recess is a maximum of 3 inches (76 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. The grip portion shall not be less than 1¼ inches (32 mm) nor more than 1½ inches (38 mm) in cross-sectional nominal dimension or the shape shall provide an equivalent gripping surface, and all surfaces shall be smooth with no sharp corners. Handrails shall not rotate within their fittings. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edges shall have a minimum radius of ¼ inch (3 mm).

Exceptions:

1. Handrails at ramps immediately adjacent to fixed seating in assembly areas are not required.
2. Curb ramps do not require handrails.

1133B.5.5.1.1 Ramp handrails. In existing buildings or facilities, where the extension of the handrail in the direction of the ramp run would create a hazard, the extension on the handrail may be turned 90 degrees to the run of the ramp.

1133B.5.6 Guide curbs and wheel guide rails. Where the ramp surface is not bounded by a wall, guide curbs in com-



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pliance with Section 1133B.5.6.1 or wheel guide rails in compliance with Section 1133B.5.6.2, shall be provided.

Where handrails or guards are attached to the ramp surface with posts or similar elements, provide guide curbs in compliance with Section 1133B.5.6.1 or wheel guide rails in compliance with Section 1133B.5.6.2.

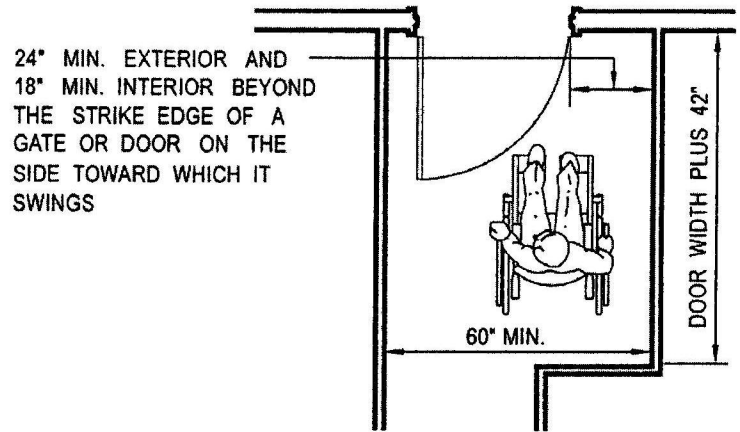
To prevent wheel entrapment, guide curbs or wheel guide rails shall provide a continuous and uninterrupted barrier along the length of the ramp.

1133B.5.6.1 A guide curb a minimum of 2 inches (51 mm) in height above the ramp surface.

1133B.5.6.2 A wheel guide rail centered 3 inches (76 mm) plus or minus 1 inch (25 mm) above the ramp surface.

1133B.5.7 Guards. Ramps more than 30 inches (762 mm) above the adjacent ground shall be provided with guards that comply with Section 1013. Such guards shall be continuous from the top of the ramp to the bottom of the ramp.

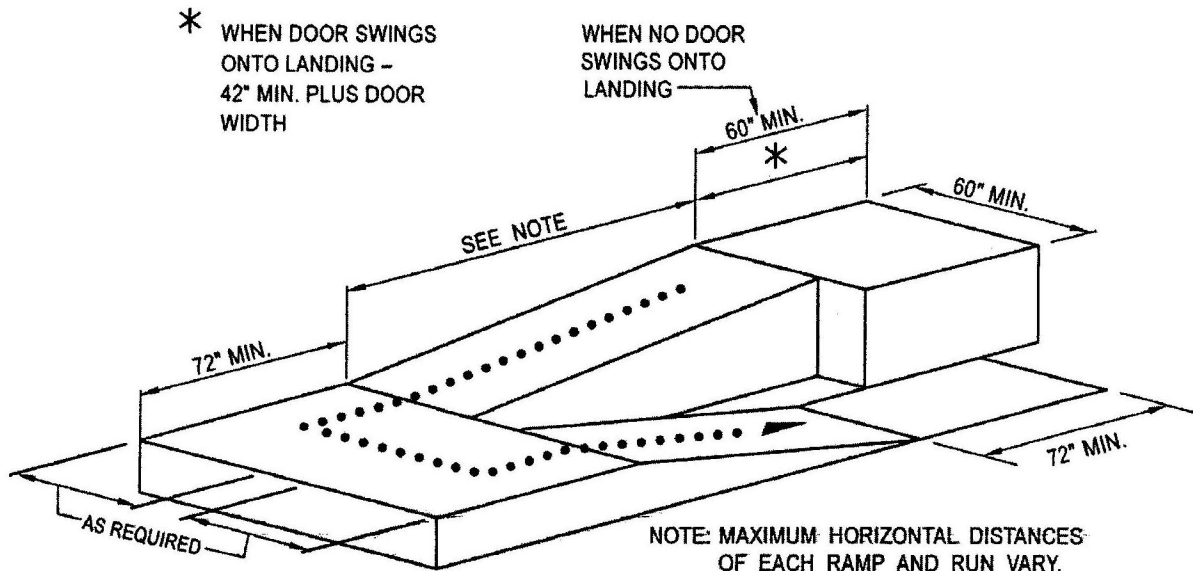
1133B.5.8 Outdoor ramps. Outdoor ramps and their approaches shall be designed so that water will not accumulate on walking surfaces.



(b) RAMP LANDING AT DOORWAY

THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-39—RAMP LANDING AND DOORWAY

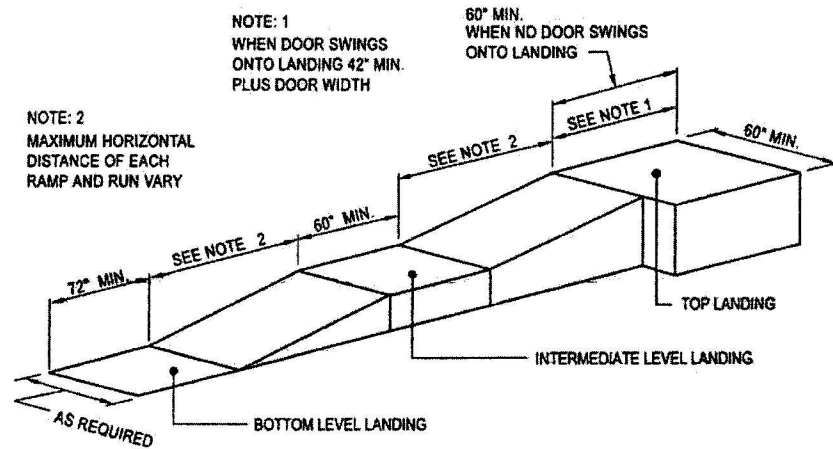


(a) RAMP WITH INTERMEDIATE SWITCH BACK LANDING

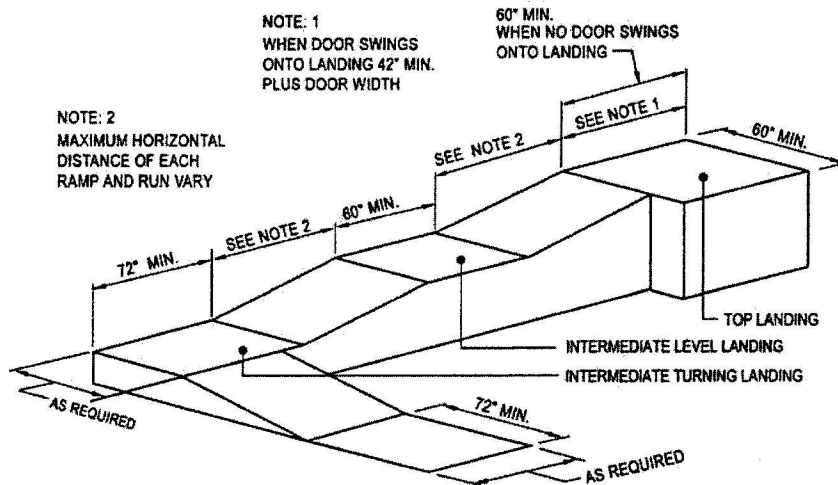


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(a) STRAIGHT RAMP RUN



(b) RAMP WITH TURNING LANDING

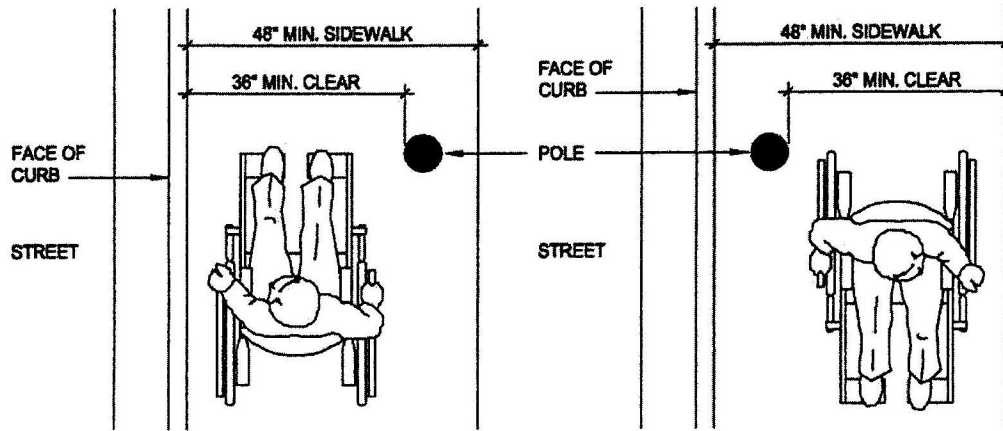
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FIGURE 11B-38—RAMP DIMENSIONS

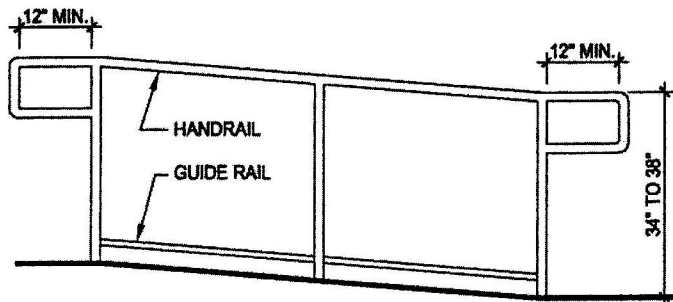


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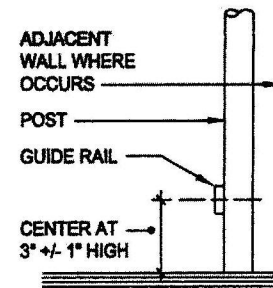
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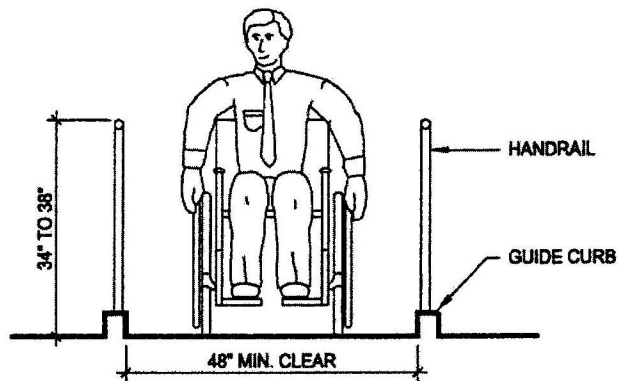
(a) SIDEWALK OBSTRUCTIONS



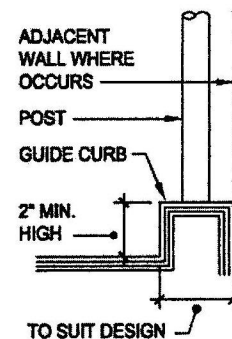
(b) HANDRAIL AND GUIDE RAIL



GUIDE RAIL DETAIL



(c) GUIDE CURB



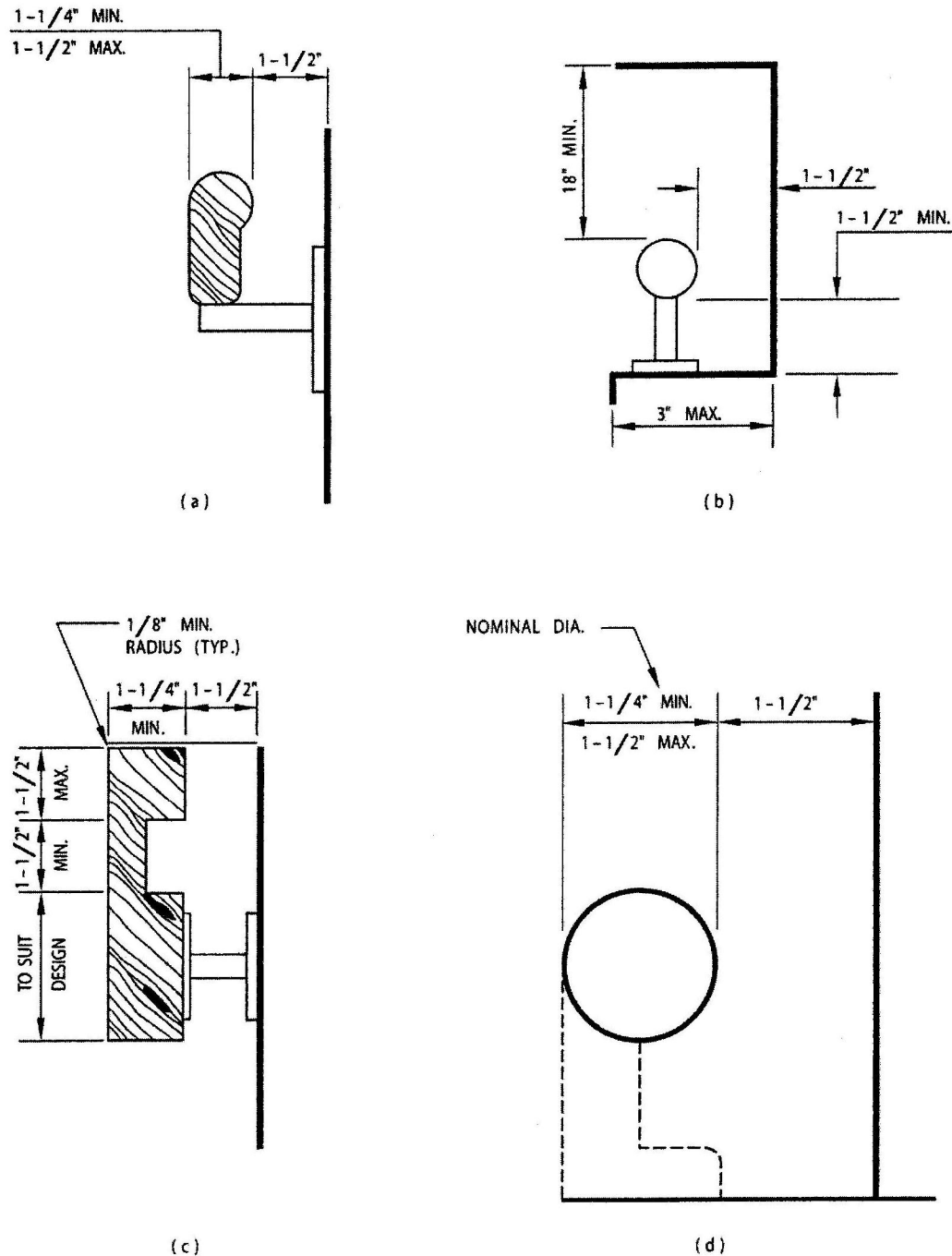
GUIDE CURB DETAIL

FIGURE 11B-27—RAMPS AND SIDEWALKS



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FIGURE 11B-36—STAIR HANDRAILS